

ABSTRACT

The fullerenic structures include fullerenes having molecular weights less than that of C_{60} with the exception of C_{36} and fullerenes having molecular weights greater than C_{60} . Examples include fullerenes C_{50} , C_{58} , C_{130} , and C_{176} . Fullerenic structure chemically bonded to a carbon surface is also disclosed along with a method for tethering fullerenes to a carbon material. The method includes adding functionalized fullerene to a liquid suspension containing carbon material, drying the suspension to produce a powder, and heat treating the powder.